

ABSTRACT

Affords for lithium secondary batteries a negative electrode component material that enhances battery cyclability by inhibiting dendritic growth that 5 occurs during charging/discharging due to the reaction of the metallic lithium and organic electrolyte.

A substrate for a lithium secondary battery negative electrode component material (5), in which a metallic lithium film (3) is formed atop the substrate and onto the metallic lithium film an inorganic solid electrolytic film 10 (4) is formed, is created from an electrical insulator that can be a polyethylene film (1). A configuration providing an electrically insulating layer at the interface between a metal base material and the metallic lithium film may also be utilized as the substrate.